

Intraground® N1 Series Control Stations

Nonmetallic

10 Amp, 600 Vac Max. for Heavy Duty Use.

N1 Series (Non-Factory Sealed) Ⓞ
Class I, Division 1 and 2, Groups C, D
NEMA 3R, 4X, 7CD, 12

Controls

CONTROLS: HAZARDOUS LOCATION CONTROL STATIONS AND SWITCHES

Applications

- Listed for use in Class I, Division 1 and 2, Group C and D atmospheres such as:
 - Diethyl ether
 - Methyl ethyl ketone
 - Acetone
 - Toluene
 - No. 3 fuel oil
 - Ammonium hydroxide (20%)
 - Benzene
 - Regular unleaded gas
 - Ethyl acetate
 - Hexane
 - Methanol
- Not suitable for:
 - Ethylene dichloride
 - Partially halogenated hydrocarbons
- Sealing fittings must be field installed adjacent to enclosure on all conduit runs.
- Explosionproof, with sealing fittings installed at each conduit entrance, the N1 Series enclosures withstood a hydrostatic test of four times the maximum internal explosion pressure that could be developed from a gas or vapor explosion.
- Push buttons and selector switches are used in conjunction with contactors or magnetic starters for remote control of motors in hazardous locations. They provide circuit control and/or selection.
- Pilot lights provide visual assurance that an electrical function is being performed at a remote or local hazardous location.

Features

- Nonmetallic construction with metal imbedded grounding grid. No need to install special wires and parts for grounding. Feed-thru or dead-end grounded 1/2" or 3/4" conduit openings for threaded conduit.
- Special grounding wire furnished with each box provides safe grounding when cover is removed.
- Ideal for use in corrosive environments. Nonmetallic enclosures with corrosion resistant parts coated with epoxy, Teflon® or Mylar®, these control stations offer unsurpassed resistance to chemicals.
- Unique labyrinth-path construction assures flame-tight joint between body and cover.
- Silicone gasket, specially designed for the labyrinth-path joint, prevents entrance of moisture without interfering with the venting of cooled hazardous gases and vapors.
- Typical mechanical properties of 24,500 psi tensile strength, 3% elongation at break, 33,000 psi flexural strength, and 1,200,000 psi flexural modulus.
- Electrical properties of sample specimens: dielectric strength (in air) of 769 at 1/16".
- High strength thermoplastic polyetherimide, together with thick walls (5/16") and sound structural design (rounded corners) provides superior resistance to impact and crushing.
- Excellent resistance to ultraviolet light and water.
- Excellent conduit connection strength.
- Excellent resistance to attack by fungi and mold.



Push Button



Pilot Light



Selector Switch



Combination Push Button and Pilot Light



Combination Selector Switch and Pilot Light

- Superior flammability resistance.

Related Products

- Sealing fitting must be installed at each conduit entrance of the N1 enclosure to be explosionproof. See *Fittings Section*.

Ⓞ For Class I, Division 1 applications, sealing fittings must be field installed adjacent to enclosure on all conduit runs.

Intraground® N2 Series Control Stations

Nonmetallic

10 Ampere, 600 Vac Max. for Heavy Duty Use.

N2 Series (Factory Sealed)
Class I, Division 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3R, 4X, 9EFG, 12

Applications

- Listed for use in Class I, Division 2, Group B, C and D atmospheres such as:
 - Diethyl ether
 - Methyl ethyl ketone
 - Acetone
 - Toluene
 - No. 3 fuel oil
 - Ammonium hydroxide (20%)
 - Benzene
 - Regular unleaded gas
 - Ethyl acetate
 - Hexane
 - Methanol.
- Listed for use in Class II, Division 1 and 2, Groups E, F and G.
- Dust-tight construction. After 32 hour UL test, no magnesium dust entered the enclosure.
- Push buttons and selector switches are used in conjunction with contactors or magnetic starters for remote control of motors in hazardous locations. They provide circuit control and/or selection.
- Pilot lights provide visual assurance that an electrical function is being performed at a remote or local hazardous location.

Features

- Factory sealed — no external seals required.
- Nonmetallic construction with metal imbedded grounding grid. No need to install special wires and parts for grounding. Feed-thru or dead-end grounded 1/2" or 3/4" conduit openings for threaded conduit.
- Special grounding wire furnished with each box provides safe grounding when cover is removed.
- Ideal for use in corrosive environments. Nonmetallic enclosures with corrosion resistant parts coated with epoxy, Teflon® or Mylar®, these control stations offer unsurpassed resistance to chemicals.
- Silicone gasket, specially designed for the labyrinth-path point between cover and body, prevents entrance of moisture and dust.
- Molded of high-tensile 30% glass reinforced thermoplastic polyetherimide. Enclosure walls are 5/16" thick.
- Typical mechanical properties of 17,000 psi tensile strength, 3% elongation at break, 27,000 psi flexural strength, and 1,100,000 psi flexural modulus (UL tests showed 18,918 psi tensile strength and 30,675 psi flexural strength).
- Electrical properties of sample specimens: dielectric strength of 490 at 1/8" and a comparative track index of 185V/0.058".
- Superior impact resistance.
- Extremely low water absorption. This important quality assures dimensional stability.
- Excellent resistance to ultraviolet light and water.
- UL Temperature Index (continuous use temperature): 266°F/130 °C electrical properties, 266°F/130 °C mechanical properties with impact, and 284 °F/140 °C mechanical properties without impact.
- Superior flammability resistance.
- Excellent pull-out resistance.



Push Button



Pilot Light



Selector Switch



Combination Push Button and Pilot Light



Combination Selector Switch and Pilot Light

Intraground® N1 and N2 Series Control Stations

Nonmetallic

10 Ampere, 600 Vac Max. for Heavy Duty Use.

N1 Series (Non-Factory Sealed) ©
Class I, Division 1 and 2, Groups C, D
NEMA 3R, 4X, 7CD, 12

N2 Series (Factory Sealed)
Class I, Division 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3R, 4X, 9EFG, 12

Controls

CONTROLS: HAZARDOUS LOCATION CONTROL STATIONS AND SWITCHES

Features

- Heavy duty push button, 10 Amp 600 Vac rated.
- Dozens of possible combinations of push buttons, pilot lights and selector switches.
- Smooth, rounded integral bushing in each conduit opening protects conduct or insulation.
- Accurately tapped, tapered conduit openings for tight, rigid joints and ground continuity.
- Push Buttons, Selector Switches, and Pilot Lights
 - Stainless steel push button shaft operates within stainless steel bushing, assuring long, maintenance-free operation.
 - Push button and selector switch contacts are silver cadmium oxide which are “sealed” in lower phenolic chamber isolated from corrosive elements. Assures positive contact and long, trouble-free operation.
 - Enclosed stainless steel helper spring prevents accidental operation of push button in severe vibration installations.
 - Corrosion resistant stainless steel Teflon® coated hex head cap screws hold covers to body.
 - Push buttons are supplied with lockout type guards as standard. Hole in guard will accept locks with up to 1/4” hasp. Permits locking of push button to prevent unauthorized operation.
 - Clearly marked terminals with brass screws assure quick, easy wiring.
 - Pilot light supplied with jewel/guard assembly and 120 Vac, 6 Watt type 6S6 lamp, 120 Vac/Vdc, 50/60 Hz, 6 Watt.

Standard Materials

- Body and cover: 30% glass-reinforced thermoplastic polyetherimide
- SPBB push button: aluminum upper barrel and phenolic lower barrel with nylon plastic button. Glass reinforced polypropylene guard. Silicone weather boot. Aluminum nameplate
- SPLS pilot light: aluminum guard and body assembly; steel clamping ring; and tempered glass jewel
- SSBA selector switch: aluminum housing, nylon knobs and cams, and sealed phenolic contact block
- NBN rectangular button with weather boot: Nylon plastic button with neoprene weather boot. Aluminum nameplate
- NMRB mushroom button with weather boot: anodized aluminum buttons with neoprene weather boot
- Selector switch locking devices and push button securing rods: stainless steel
- Cover bolts: stainless steel
- Nameplates: copperfree (4/10 of 1% max.) aluminum
- Receptacles: copperfree (4/10 of 1% max.) aluminum

Standard Finishes

- Cover bolts: Teflon®
- Nameplates: Mylar®
- Pilot light guard and clamping ring: epoxy

Options

- Three position selector switches with modified operation. For description and switch diagram, refer to switch operators.
 - Momentary contact right position, spring return to center, maintained contact left position. Add suffix **-SRC**.
 - Momentary contact left position, spring return to center, maintained contact right position. Add suffix **-SLC**.
- Alternate contacts add suffix **-ALT**.
- Selector switch Lockout: locks 2- or 3-position handle in any position. Suffix **-LD**.
- Push button front operated mushroom head (momentary contact):
 - Red **-NMRBRE**
 - Green **-NMRBGR**
 - Black, add suffix **-NMRBBL**.
- Pilot light jewel/guard assembly. Order by suffixes if color desired is other than red, as follows:
 - Amber **-JGBA**
 - Blue **-JGBB**
 - Clear **-JGBC**
 - Green **-JGBG**
 - Opal **-JGBO**
- For colored LED jewel/guard assembly, order by suffixes:
 - Red **-LEDR**
 - Green **-LEDG**
 - Amber **-LEDA**
- Pilot light transformers for single pilot light per gang. Order by suffix:

Primary Voltage	Lamp Voltage	Suffix
220	120	TR-2
277	120	TR-3
440	120	TR-4
550	120	TR-5

- Securing rod for push button lockout guard. Add suffix **-SR**.
- **NPBRKT** nameplate mounting bracket to make circuit description/ identification easy.
 - Pre-drilled holes in bottom of bracket allow direct mounting to control stations with existing cover bolts.
 - Pre-drilled holes in middle of bracket allow mounting of customer’s circuit identification nameplate; epoxy glue may also be used for mounting (phenolic nameplate not included).
 - Bracket eliminates costly field installation of drilling and tapping to accommodate circuit identification nameplate.
 - Brackets fit side-by-side on 2-, 3- and 4-gang boxes and 3-devices.

Certifications and Compliances

- UL Standards: UL 508, UL 698, UL 1203
- UL Listed: E10449, E81751

© For Class I, Division 1 applications, sealing fittings must be field installed adjacent to enclosure on all conduit runs.

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Intraground® N1 and N2 Series Control Station Push Button Accessories and Parts

Nonmetallic

10 Ampere, 600 Vac Max. for Heavy Duty Use. N1 Series – Neutral Color; N2 Series – Blue Color.

Controls

CONTROLS: HAZARDOUS LOCATION CONTROL STATIONS AND SWITCHES

Description		Catalog Number
Pilot Light Jewel/Guard Assembly		
<i>The below catalog numbers indicate an assembly of the Pilot Light Jewels and Guards. Jewels and Guards are not available as separate items.</i>		
	Amber Jewel/Guard	JGBNA
	Blue Jewel/Guard	JGBNB
	Clear Jewel/Guard	JGBNC
	Green Jewel/Guard	JGBNG
	Opal Jewel/Guard	JGBNO
	Red Jewel/Guard	JGBNR

Replacement Bulbs



EPL-B6W



EPLLEDR

Clear Bulbs

Furnished with candelabra base. 6 Watt, 120 Vac, Type 6S6

EPL-B6W

LED Replacements

Furnished with candelabra base. 120 Vac, 10 mA

Red LED

EPLLEDR

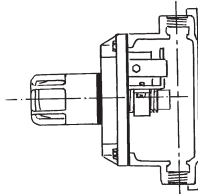
Green LED

EPLLEDG

Amber LED

EPLLEDA

Transformer



Add Suffix as listed below. Transformer clamps directly to pilot light barrel.
Only one pilot light transformer assembly per one gang body.

Primary Vac	Lamp Vac	Suffix
220	120	TR2
277	120	TR3
440	120	TR4
550	120	TR5

Nameplates for Pilot Light



LNPRUNQ

Description	Catalog Number	Description	Catalog Number
Blank	LNPBQ	Reset	LNPRESETQ
Forward	LNPFWDQ	Off	LNPOFFQ
Jog	LNPJOGQ	On	LNPONQ
Run	LNPRUNQ	Reverse	LNPREVQ
Stop	LNPSPQ	Close	LNPCLOSEQ
Start	LNPSTQ	Open	LNPOPENQ
Down	LNPDOWNQ	Up	LNPUPQ
Fast	LNPFASTQ	Test	LNPTTESTQ
Slow	LNPSLOWQ	Low	LNPLOWQ
Raise	LNPRASEQ	High	LNPHIGHQ
Lower	LNPLOWERQ		